REVERSE SHOULDER ARTHROPLASTY

<u>The reverse shoulder replacement</u> can restore comfort and function to the arthritic shoulder with a massive rotator cuff tear, shoulder arthritis, or for failed conventional total shoulder replacement. When the rotator cuff is sufficiently torn that it no longer provides the necessary stability for the joint, the humeral head slides upwards. This results in slackening of the deltoid so that it can no longer raise the hand to carryout normal activities. The reverse shoulder provides stability of the shoulder joint so that the deltoid muscle can power the shoulder through a useful range of motion. In this procedure the arthritic ball is replaced by a socket fixed to the arm bone (humerus) by a stem that fits within it. A metal ball is fixed to the bone of the arthritic socket. Success requires technical excellence of the surgery and a commitment to a conservative rehabilitation program.

What Is Rotator Cuff Arthropathy?

Shoulder arthritis is a condition in which degeneration, injury, inflammation or previous surgery destroys the normally smooth cartilage on the ball (humeral head) and socket (glenoid).

How Is Shoulder Arthritis Diagnosed?

Carefully standardized X-rays reveal the loss of the space between the humeral head and glenoid that is normally occupied by cartilage, leaving bone on bone contact. There is "high-riding" of the humeral head compared to the socket due to the absence of the rotator cuff tendons. CT scans and MRI studies can be helpful in providing additional information about bone quality and the soft tissues surrounding the shoulder joint.

Normal Shoulder X-ray

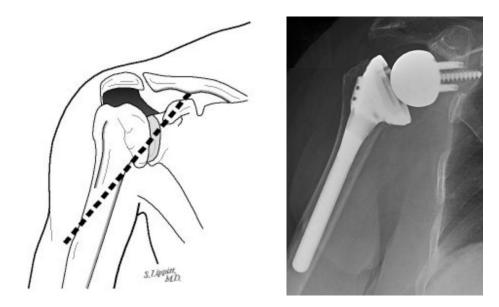


Shoulder with rotator cuff arthropathy



How Is a Reverse Shoulder Arthroplasty Performed?

After a general or regional anesthetic, this procedure is performed through an incision between the deltoid and the pectoralis major muscles on the front of the shoulder. It includes release of adhesions and contractures and removal of bone spurs that may block range of motion. Our team of surgeons, anesthesiologists, and surgical assistants usually perform this procedure <u>in less than two hours</u>. The arthritic surface of the ball is replaced with a metal socket with a stem that is press fit down the inside of the arm bone (humerus) so that only the smooth surface extends from the bone. A metal ball is fixed to the bone of the arthritic socket.



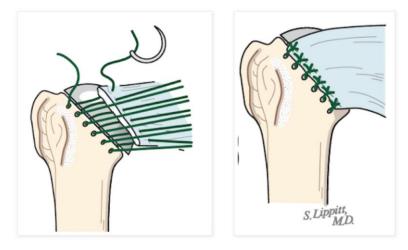
What Happens Immediately After Surgery?

The pain from this surgery is managed by the anesthetic and by pain medications. Oral pain medications (such as oxycodone, hydrocodone or Tylenol with codeine) are usually sufficient after the day of surgery. You may decide to go home the day of surgery or be admitted to the hospital for one day. This will depend on your overall health and your overall comfort following surgery.

What is the Rehabilitation Process After Surgery?

The patient is encouraged to be up and out of bed soon after surgery and to progressively reduce their use of narcotic pain medications. A sling is generally required for <u>6 weeks after surgery</u>. Patients are to avoid lifting more than one pound during this time. Driving is recommended only after the shoulder has regained comfort and the necessary motion and strength. For this reason, patients usually require some assistance with self-care, activities of daily living, shopping and driving for approximately six weeks after surgery. Management of these limitations requires advance planning to accomplish the activities of daily living during the period of recovery.

For the first 2 weeks of the recovery phase, the focus of rehabilitation is on performing simple pendulum exercises. Forward elevation exercises will begin at 2 weeks following surgery. Strengthening exercises are avoided during the first 6 weeks so as not to stress the subscapularis tendon repair before it heals back to the bone (see below). Later on, once the shoulder is comfortable and flexible, strengthening exercises and additional activities are started. Some patients prefer to carry out the rehabilitation program themselves. Others prefer to work with a physical therapist who understands the total shoulder rehabilitation process.



Once A Shoulder With A Reverse Shoulder Arthroplasty Has Successfully Completed The Rehabilitation Program, What Activities Are Permissible?

Once the shoulder has nearly full range of motion, strength and comfort, the patient can often return to nearly all low-impact activities including swimming, tennis, and golf. This generally occurs around six months after surgery. We recommend that the shoulder be protected from any contact sports or heavy overhead lifting. Thus, we discourage chopping wood, vigorous hammering, and recreational activities that subject the shoulder to impact loading (overhead military presses).

What Problems Can Complicate A Reverse Shoulder And How Can They Be Avoided?

Like all surgeries, the total shoulder arthroplasty can be complicated by infection, nerve or blood vessel injury, fracture, instability, component loosening, and anesthetic complications. The most common cause of failure in the short term is dislocation of the shoulder which may be caused by upward force on the shoulder (using hand to get out of a chair).